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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,478	11/30/2001	Scott E. Black	38190/240126	6394

826 7590 10/27/2004

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EXAMINER
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PIAZZA CORCORAN, GLADYS JOSEFINA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 10/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b>	<b>Application No.</b> 09/998,478	<b>Applicant(s)</b> BLACK ET AL.	
	<b>Examiner</b> Gladys J Piazza Corcoran	<b>Art Unit</b> 1733	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 28 September 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. **ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).**

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☒ they raise the issue of new matter (see Note below);
  - (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1-20.

Claim(s) withdrawn from consideration: 21-35.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☒ Other: See Continuation Sheet

  
 Gladys J. Corcoran  
 Primary Examiner  
 Art Unit: 1733

Continuation of 2. NOTE:

Applicant's amendments to the claims raise issues of new matter by adding the limitation steps of the constructing steps for forming a data point into the providing step for providing the feedforward response of the independent claims. Additionally, these steps provide a new combination of the new steps of empirically providing the feedforward response surface with the theoretical steps of mathematically providing the feedforward response surface. Consequently, these amendments raise new issues that would require further search and/or consideration.

Continuation of 10. Other:

Applicant argues in the remarks that the none of the references teach that the predefined feedforward control value can be provided as the control value during a learning operation such as the construction of a look-up table. However, Lichtenwalner discloses on page 688 that "Real-time plots of process temperature, feed rate, and control voltage are provided to the user and also automatically logged to disk for post-process analysis", on page 688 that "The CMAC is a memory-based learning system that can be thought of as a dynamically adjustable look-up table", on page 689 that "The network acts as a feedforward controller that computes control voltage as a function of desired temperature and measured feed rate", and on page 689 that "The feedforward control function is learned automatically on-line". Consequently, as the process is run, using a feedforward control value, the resulting variables are recorded and the network "learns" the feedforward control function for the system.

Applicant further argues in the remarks that none of the references teach storing a resulting temperature in the feedforward response surface during any stage of operation. However, Lichtenwalner discloses that real-time plots of the process temperature, feed rate and control voltage are automatically logged to a disk (page 688). Additionally, during the network learning process, the values must be stored in order for the network to retrieve the values for the learning process.